LAYTON BOULEVARD WEST NEIGHBORS
SOLAR HOT WATER INSTALLATION RFP

Layton Boulevard West Neighbors
1545 S. Layton Boulevard, Suite 506
Milwaukee, WI 53215

Layton Boulevard West Neighbors (LBWN) is requesting proposals from qualified firms/installers (the "Contractor") to install solar hot water systems on two LBWN owned multi-unit homes, in partnership with *Milwaukee Shines*, the City of Milwaukee's solar program. This project is funded in part through the American Recovery and Reinvestment Act.

Proposals are Due – August 8, 2011

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I. Background

The City of Milwaukee's solar program, *Milwaukee Shines,* works to increase investment and interest of solar energy. City of Milwaukee Office of Environmental Sustainability (OES) administers the *Milwaukee Shines* program, which is funded in part by the American Recovery and Reinvestment Act (ARRA). Some of these funds have been granted to LBWN to demonstrate the viability of solar energy, while helping to reduce energy costs at three of their multi-unit properties.

II. Scope Details

LBWN seeks a qualified Installer to install solar hot water systems on two LBWN owned facilities. The Contractor will install solar hot water systems at the follow two locations:

1. 1004 South 37th Street, Milwaukee, WI
2. 1609 South 37th Street, Milwaukee, WI

A. Contractor Requirements: Contractor must be listed as a "Residential Solar Delivery Ally" by Focus on Energy at the time of submitting the bid. The contractor must qualify to provide customers with Focus on Energy incentives, and be able to warranty workmanship and provide a service contract on the installed systems based on the Focus on Energy required five (5) year warranty. Details on "Residential Solar Delivery Ally": http://www.focusonenergy.com/files/Document_Management_System/Renewables/windsolar_policy.pdf NABCEP certified installers are preferred.

B. Relationship of Parties:

a. **Layton Boulevard West Neighbors/Sustainable Development LLC**. LBWN is the owner of the systems. As such, LBWN will hire the contractor to layout the systems and assist with Focus on Energy Cash Back Reward applications. LBWN will be responsible for paying the contractor for time and materials beyond what is covered by incentives or donations.

b. **City of Milwaukee.** The City of Milwaukee administers the *Milwaukee Shines* solar program, which is funded through a grant from the US Department of Energy. *Milwaukee Shines* will provide up to $30,000 for the installation of these systems. The funds come from the American Recovery and Reinvestment Act (ARRA), and such the ARRA requirements flow down to the selected contractor. The City of Milwaukee will coordinate with your subcontractor to ensure they meet all the provisions and requirements outlined in the contract. The City of Milwaukee will work directly with Contractor to collect required reporting forms, including but not limited to Buy American provisions and Davis Bacon requirements.

c. **Contractor.** The chosen Contractor for these installations will work with all of the parties in the roles mentioned above. Primary duties include laying out the systems, procuring materials, assuring that the tools and parts for the installation are on site, providing a warrantee on labor.

d. Contractor is responsible for applying for Focus on Energy Cash Back Rewards, and pulling the necessary permits.

III. Project Requirements

A. Time Frame: Installation of solar hot water systems must be completed by November 30, 2011. Final billing to LBWN must be submitted by November 30, 2011.

B. American Recovery and Reinvestment Act: This project is funded through the American Recovery and Reinvestment Act (ARRA). Contractors working on ARRA funded projects must agree to comply with the Special Terms and Conditions noted in Appendices A, B and C, which includes Davis Bacon Wage provisions, and Buy American Act provisions.

Install Requirements

C. Installation General Requirements: Work done shall be executed in a thorough and workmanlike manner.
   a. Close all pipe openings, etc., with proper caps and fittings to prevent obstructions in or damage of any kind while the building construction is in progress.
   b. Protect all equipment, etc., during installation.
   c. Damaged equipment must be completely replaced.
   d. Repaired equipment will not be accepted.

D. Openings and Sleeves:
   a. Accurately locate openings in walls, floor, and roof for ducts and piping. Contractor shall be responsible for setting his own sleeves and providing wall, floor, and roof openings.
   b. In event that holes must be cut, they must be drilled to avoid spalling and unnecessary damage or weakening of structure. Any sleeves placed in core-drilled holes shall be mortared in place by this contractor.
   c. Chopping or breaking out will not be allowed.
   d. Before drilling through concrete obtain Project Coordinator, Jeremy Belot's, permission and proceed as directed.
   e. Any damage resulting from this work must be repaired to match existing construction to the satisfaction of the Project Inspector in charge.
   f. Sleeves for sheet metal ducts shall be made of 20 gauge galvanized steel.
   g. Sleeves for pipes passing through walls and floors shall be galvanized steel pipe large enough to accommodate the pipe and insulation and of sufficient length to extend through the entire wall or floor. Fill all space between the insulation and sleeve with fiberglass insulation material. Install fire-stop material when passing through rated ceiling or walls to match rating.

E. Cutting and Patching:
   a. Cutting and patching required to access work in existing walls, in chases, above inaccessible ceilings, below floors, etc., shall be by the Contractor who requires the access, unless shown on the bid documents otherwise or noted otherwise.
   b. Contractor shall do all cutting, or fitting of the work as required to make its several parts fit together, or to receive the work of others, as shown or reasonably implied by the drawings or specifications, or as may be directed by Project Inspector. Holes cut in exterior walls and/or roofs shall be waterproofed.
   c. The Contractor who cuts shall also be responsible for patching. Where cutting and patching is required, the Contractor shall hire individuals skilled in such work to do cutting and patching.
   d. The Contractor who removes or relocates building components which leaves a remaining opening shall be responsible for patching the opening.
   e. Patching includes repairing openings to match adjacent construction and painting the surface to match existing. Painting means covering the entire wall where patching is to be done to nearest break point or corner unless indicated to be done by other trades.
   f. Contractor shall not endanger any work by cutting, digging or otherwise and shall not cut or alter the work of others without their consent.

g. If any ductwork, piping, conduit, etc. is required through walls or floors where no sleeve has been provided, use a core drill or saw cut to prevent damage and structural weakening.
h. Wherever any material, finish, or equipment, is damaged, the skilled trade shall accomplish the repair or replacement, in that particular work and the cost shall be charged to the party responsible for the damage. Project Inspector reserves the right to disallow any means and/or methods that, in the opinion of Project Inspector, are harmful to and/or not in the best interest of preserving the improvements receiving the work.

F. Sealing and Firestopping:

a. Fire and/or Smoke Rated Penetrations:

i. Manufacturer's: 3M, STI/SpecSeal, Tremco, or approved equal.
ii. All firestopping systems shall be provided by the same manufacturer.
iii. Fire stops systems shall be UL listed or tested by an independent testing laboratory approved by the Department of Industry, Labor, and Human Relations/Department of Commerce.
iv. Submittals: Contractor shall submit product data for each firestop system. Submittals shall include produce characteristics, performance and limitation criteria, test data, MSDS sheets, installation details, and procedures for each method of installation applicable to this project. For non-standard conditions where no UL tested system exists, submit manufacturer's drawings for UL system with known performance for which an engineering judgment can be based upon.
v. Use a product that has a rating not less than the rating of the wall or floor being penetrated. Reference architectural drawings for identification of fire and/or smoke rated walls and floors.
vi. Use firestop putty, caulk sealant, intumescent wrapstrips, intumescent firestop collars, firestop mortar, or a combination of these products to provide a UL listed system for each application required for this project. Provide mineral wool backing where specified in a manufacturer's application detail.

b. **Non-Rated Penetrations:**

i. In exterior wall openings below grade, use a modular mechanical type seal consisting of interlocking synthetic rubber links shaped to continuously fill the annular space between the un-insulated pipe and the cored opening or a water-stop type wall sleeve. The operating bolts of the mechanical type seal shall be accessible from the building interior.
ii. At pipe penetrations of interior partitions and floors, use urethane caulk in annular space between pipe insulation and sleeve.

c. **Sealing and Firestopping Installation:**

i. Fire and/or Smoke Rated Penetrations:
1. Install approved product in accordance with the manufacturer's instructions where a pipe penetrates a fire/smoke rated surface. When pipe is insulated, use a product which maintains the integrity of the insulation and vapor barrier.
2. Where firestop mortar is used to infill large fire-rated floor openings that could be required to support weight, provide permanent structural forming. Firestop mortar alone is not adequate to support substantial weight.

ii. Non-Rated Partitions:
1. In exterior wall openings below grade, assemble rubber links of mechanical seal to the proper size for the pipe and tighten in place, in accordance with manufacturer's instructions.
2. At all interior partitions, pipe penetrations are required to be sealed. Apply to both sides of the penetration in such a manner that the annular space pipe sleeve or cored opening and the pipe or insulation is blocked.

G. Hangers, Supports and Anchors: Installation:
    a. Support all piping to comply with the Wisconsin Codes.
    b. Hangers shall be capable of supporting the pipe under all conditions of operation. Support risers independently of connected horizontal piping.
    c. Use specified hangers to support piping.
        i. Maximum hanger spacing for horizontal piping: Copper pipe = 8 feet.
    d. Use insulation protection shields under all supports for insulated horizontal piping.

H. Plumbing Insulation: General Requirements:
    a. All insulation shall comply with the minimum requirements of the Wisconsin Energy Code.
    b. All piping to be insulated must be tested, approved, cleaned, and dry prior to applying insulation.
    c. Firmly butt adjoining sections of piping insulation together and seal longitudinal jacket laps and butt strips. Seal all breaks in the jacket with section of jacket material adhered with sealer. (Breaks include holes made by staples.)
    d. Protect insulation at horizontal pipe supports with 18 gauge galvanized sheet metal shields.
    e. Insulate all hot and cold water piping in the building installed under this contract.
    f. All exterior piping to be covered with PVC jacketing suitable for exterior use.

Equipment Requirements

Equipment and balance of systems can be selected at Contractor's preference to meet the specifications of the two installations, as long as it complies with provisions set out in Appendix A, especially Buy American Act requirements. Questions regarding the Buy American Act requirements should contact:

Amy Heart, Solar Program Manager
Milwaukee Shines
Office of Environmental Sustainability
City of Milwaukee
200 East Wells, Room 603
Milwaukee, WI 53202
414-286-5593
aheart@milwaukee.gov

Specific Site Installation Requirements

A. 1004 South 37th Street, Milwaukee, WI
    a. Contractor shall install a drainback system.
    b. Recommend up to 80 square feet of collector size and solar storage tank is 80 gallons.
    c. Use site visit and provided site assessment to verify most appropriate location and angle for collectors, storage tank, and pipe runs.
    d. Contractor is to provide all permits and all necessary related calculations. This includes but is not limited to static calculations. It is the Contractor's responsibility to gain knowledge about requirements based on documents supplied with this bid.
    e. Ceiling height and location of piping is to be determined by Contractor.
    f. Install all necessary equipment as described elsewhere in this project manual.

B. 1609 South 37th Street, Milwaukee, WI
    a. Contractor shall install a drainback system.
    b. Recommend up to 80 square feet of collector size and solar storage tank is 80 gallons.
    c. Use site visit and provided site assessment to verify most appropriate location and angle for collectors, storage tank, and pipe runs.

d. Contractor is to provide all permits and all necessary related calculations. This includes but is not limited to static calculations. It is the Contractor's responsibility to gain knowledge about requirements based on documents supplied with this bid.
e. Ceiling height and location of piping is to be determined by Contractor.
f. Install all necessary equipment as described elsewhere in this project manual.

Project Closeout

A. Inspection and Testing
    a. Instructions: Provide instructions for each system type. Include in these instructions a system schematic, and wiring and control diagrams showing the complete layout of the solar system. Prepare condensed operating instructions explaining preventative maintenance procedures, balanced flow rates, methods of checking the system for normal safe operation, and procedures for safely starting and stopping the system, in typed form, framed as specified above, and posted beside the diagrams. Post the framed instructions before acceptance testing of each system.
    b. Acceptance Testing and Final Inspection: Maintain a written record of the results of all acceptance tests, to be submitted in booklet form.
    c. Hydrostatic Test: Hydrostatically test each system. Isolate valving and instrumentation not suitable for the intended test pressure.
    d. Operational Test: Operationally test each system over a period of 48 consecutive hours with sufficient solar insolation to cause activation of the solar energy system during daylight hours.
    e. Overall System Operations: Demonstrate each solar system will operate properly while unattended for a period of at least 72 hours.
    f. Temperature Sensor Diagnostics: As required by system design, demonstrate the controller will correctly identify open and short circuits on both the solar collector temperature sensor circuit and the storage tank sensor circuit.
B. Operating and Maintenance Manual
    a. Submit manuals that detail the step-by-step procedures required for system filling, startup, operation, and shutdown. Include in the manuals the manufacturer's name, model number, service manual, parts list, and brief descriptions of all equipment and basic operating features.
    b. List routine maintenance procedures, possible breakdowns and repairs, recommended spare parts, troubleshooting guide, piping and equipment layout, balanced fluid flow rates, and simplified wiring and control diagrams of the system as installed.
C. Field Training
    a. Provide a field training course for operating and maintenance staff members after the systems are functionally complete. Include in the training a discussion of the system design and layout and demonstrate routine operation, maintenance and troubleshooting procedures.

IV. Proposal Submission Requirements

Proposers responding to this RFP are required to submit a bid that includes the following information.

A. Contractor Qualifications: Contractor must provide confirmation that he is listed as a "Residential Solar Delivery Ally" by Focus on Energy (www.finditwithfocus.com). Provide installation experience.
B. Price Estimate: Provide price estimate for each project, and detail the cost break down in each of the following categories:
    a. System components and other parts
    b. Design of the system, labor costs, warranties, service contract
    c. Estimated Focus on Energy Cash Back Reward, including a draft application that provides back-up to estimate. Use form found here: http://j.mp/FocusSHW

C. Bid Base Exclusions: Contractor shall exclude from their base bid the estimated dollar amount that they will be able to recoup from Wisconsin Focus on Energy cash back reward under this project.
D. Debarment Certification: Proposers are required to provide documentation with their proposal certifying that they will comply with the provisions contained in the last paragraph of Appendix A, Section 27 – Other Federal Requirements.
E. Special Terms and Conditions: Proposers are required to submit a signed letter on company letterhead confirming that they will comply with all of the provisions contained in Appendices A, B and C.
F. The bid proposal document must be signed and dated.
G. Site Visit: LBWN will coordinate site tour of all two facilities. Please contact Jeremy Belot at 414-383-9038 x2515 to arrange a site visit.
H. Timeline: Bid proposal will be accepted no later than Monday, August 8th, 2011 at 4 PM. Quotations may be mailed or e-mailed to address listed below:

Jeremy Belot
Layton Boulevard West Neighbors
1545 S. Layton Blvd, Suite 506
Milwaukee, WI 53215
414-383-9038 x2515
jeremy@lbwn.org

V. Award Criteria

LBWN will award the contract on the basis of the base bid only (lump sum for both installations).

Award will be made to the highest ranked proposer in accordance with the following criteria:

- Compliance with Proposal Submittal Requirements: Pass/Fail
- Background and Experience of the Proposer: Proposers will be evaluated on their ability to install and warranty systems for LBWN.
- Cost: Proposer's cost proposal will be evaluated on total cost estimate net of any applicable Focus on Energy incentives.

VI. Other

Contact Person: All communications regarding this RFP process should be directed to:

Jeremy Belot
Layton Boulevard West Neighbors
1545 S. Layton Blvd, Suite 506
Milwaukee, WI 53215
414-383-9038 x2515
jeremy@lbwn.org

Proposal Questions: Proposers should read the RFP and Appendices A, B and C prior to submitting questions.
Jurisdiction, Venue, Choice of Law: This RFP and any resulting contract shall be governed by and construed according to the laws of the State of Wisconsin. .
Assignment: The Proposer may not reassign any award made as a result of this RFP, without prior written consent from LBWN.

PROCUREMENT SCHEDULE

Date	Selection Procedure
July 25, 2011	RFP release date
August 8, 2011	Deadline for submitting bid proposal
August 15, 2011	Contractor Selected
November 30, 2011	Installation Completed, Invoices Submitted to LBWN